

REMARKS

Interview Summary

Applicants thank Examiner Chea for his time and attention in the interview held on January 7, 2004. In the interview, Applicant's Representative discussed support in the specification for new claim 13. Arguments were also presented regarding a showing of unexpected results reported in Table 17 in the Declaration submitted in the Reply filed November 4, 2003. The comments and suggestions of the Examiner are incorporated into this Supplemental Reply.

Status of the Claims

Claims 1-11 are pending in this application. Claim 13 has been canceled. Claim 1 has been amended to recite that the photothermographic material does not contain hydrazine derivatives. Support for this claim is found, for example, in original claim 1 and page 75, lines 24-25 in the specification.

Rejection under 35 USC 103(a)

The Examiner maintains the rejection of claims 1-8 and 10-12 as obvious over Ito et al. USP 6,150,084 (Ito '084) or JP 11-149136 (JP '136) in view of JP 11-194447 (JP '447), Eshelman et al. USP 5,858,637 (Eshelman '637), Lok et al. USP 5,945,270 (Lok '270) and

Lok et al. USP 5,912,112 (Lok '112). Applicants traverse the rejection and respectfully request the withdrawal thereof.

The present invention is directed to a photothermographic material that contains photosensitive silver halide, non-photosensitive silver salt of an organic acid, a reducing agent and a binder on one side of a support and no hydrazine derivatives, wherein the material comprises at least one compound that satisfies item (iv) and at least one of items (i)-(iii), and an organic gold compound. The photothermographic material of the present invention has excellent photographic properties, such as high sensitivity, low fog after long storage, high Dmax under low temperature and low humidity, and low temperature and humidity dependency in variation of line width during development.

Ito '084 discloses a photothermographic material that contains a hydrazine compound. Ito '084 discloses hydrazine compounds as well as compounds of formulas (1) to (3) as useful nucleating agents. Ito '084 fails to disclose or suggest a photothermographic material that does not have a hydrazine compound.

JP '136 discloses a compound of Formula (I) of the present invention.

JP '447, Eshelman '637, Lok '270 and Lok '112 disclose organic gold compounds used in a photothermographic material.

None of the above cited references suggests a photothermographic material containing organic gold compounds used

in combination with a compound of JP '136 and a compound of Ito '084. Thus, no *prima facie* case of obviousness has been established.

Assuming *arguendo* that a *prima facie* case of obviousness has been established, Applicants present evidence of unexpected superior results of the combination suggested by the Examiner in the attached Declaration of Mr. Oikawa.

Mr. Oikawa conducted comparative tests to show that the addition of a gold compound to a silver halide emulsion containing a compound of the present invention that satisfies the conditions (i) to (iii) in the claims improves sensitivity, Dmax and variation of line width while not adversely affecting Dmin. The results of the testing are reported in the Table in the Declaration.

Mr. Oikawa prepared sample numbers A-1 to A-4 to include Emulsion A of Ito '084 (without gold), and a compound of Ito '084 selected from the group consisting of C-1, C-42, C-8 and C-57. Sample numbers A-1 to A-4 failed to exhibit the superior properties of the invention, such as improved sensitivity, high Dmax, and lower variation of line width. See the results in the Table.

Mr. Oikawa also prepared sample number A-5, which contains Emulsion A of Ito '084 (without gold) and a hydrazine compound. This sample also failed to yield the excellent photographic properties of the present invention.

Sample B-5, which contains Emulsion A (with gold) and a hydrazine compound also fails to yield the excellent photographic properties of the present invention.

On the other hand, sample numbers B-1 to B-4, representative of the present invention, contain Emulsion A (with gold) and a compound of Ito selected from C-1, C-42, C-8 and C-57. These samples exhibit a much lower variation of line width, higher Dmax, increased sensitivity, while still maintaining a good Dmin.

A comparison between A-1 to A-4 and B-1 to B-4 indicates that addition of gold to the silver halide emulsion unexpectedly improves the photographic properties in the samples that represent the present invention.

A comparison between A-5 and B-5 indicates that the addition of gold to the silver halide emulsion and the presence of a hydrazine derivative is an improvement over no gold, but yet also adversely affects Dmin, resulting in poor photographic properties.

As such, Applicants have successfully rebutted any presumption that the present invention is obvious over the combination of references by showing unexpected superior results over a material that does not contain gold in the silver halide emulsion and a material that contains gold in the silver halide emulsion, but also has a hydrazine derivative present. Thus, this rejection should be withdrawn.

The Examiner also maintains the rejection of claim 9 as obvious over Ito et al. USP 6,150,084 (Ito '084) or JP 11-149136 (JP '136) in view of JP 11-194447 (JP '447), Eshelman et al. USP 5,858,637 (Eshelman '637), Lok et al. USP 5,945,270 (Lok '270) and Lok et al. USP 5,912,112 (Lok '112) and further in view of Hahm et al. USP 5,962,210. Applicants traverse the rejection and respectfully request the withdrawal thereof. Applicants rely on the above arguments and evidence of unexpected superior results to overcome this rejection.

Conclusion

As Applicants have addressed and overcome all rejections in the Office Action, Applicants respectfully request that the rejections be withdrawn and that the claims be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Mr. Oikawa's Declaration under 37 CFR 1.132